



Surf City, NC
Beach Restoration Program
Presented By TI Coastal, PLLC



Vibracores

- TI Coastal contracted Athena Technologies to collect Vibracores in Banks Channel.
- A total of 39 additional vibracores were collected in Banks Channel



Borrow Area-Banks Channel



Vibracore Analysis

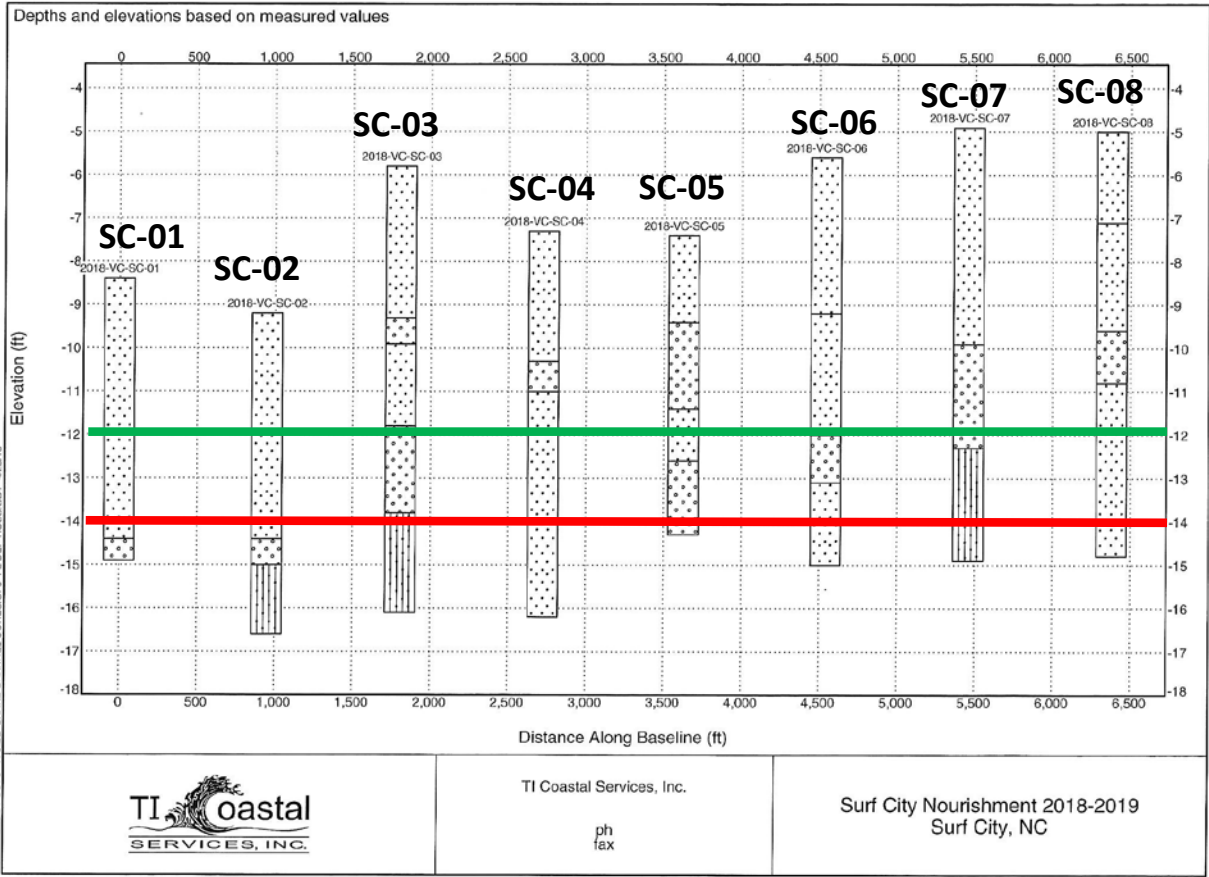
- 39 vibracores were photographed, described and sampled in order to determine if the material in Banks Channel was beach compatible.
 - Grain size analysis through sieving
 - Calcium carbonate testing through acid digestion



Dredge Depth 12+2 MLW

12 MLW 

14 MLW 



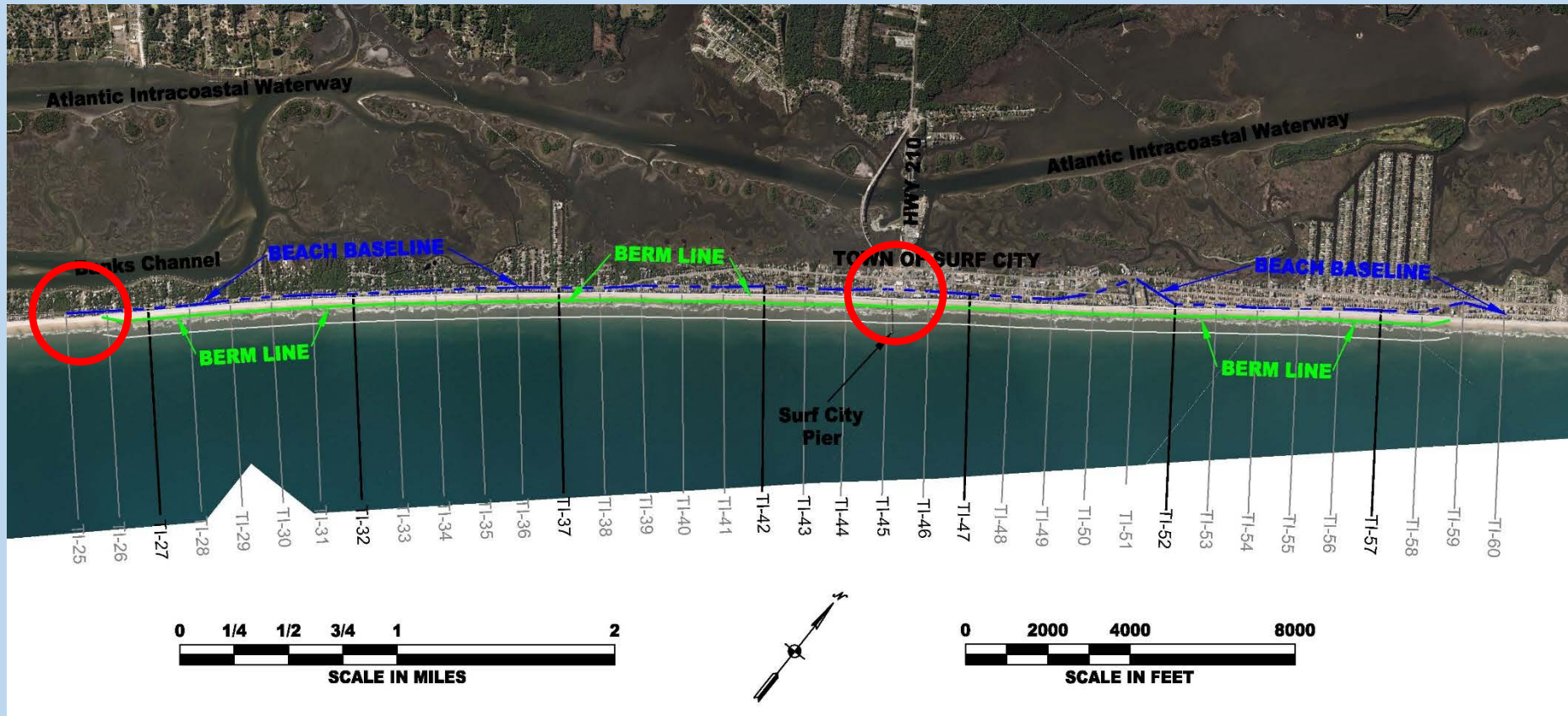
Borrow Area



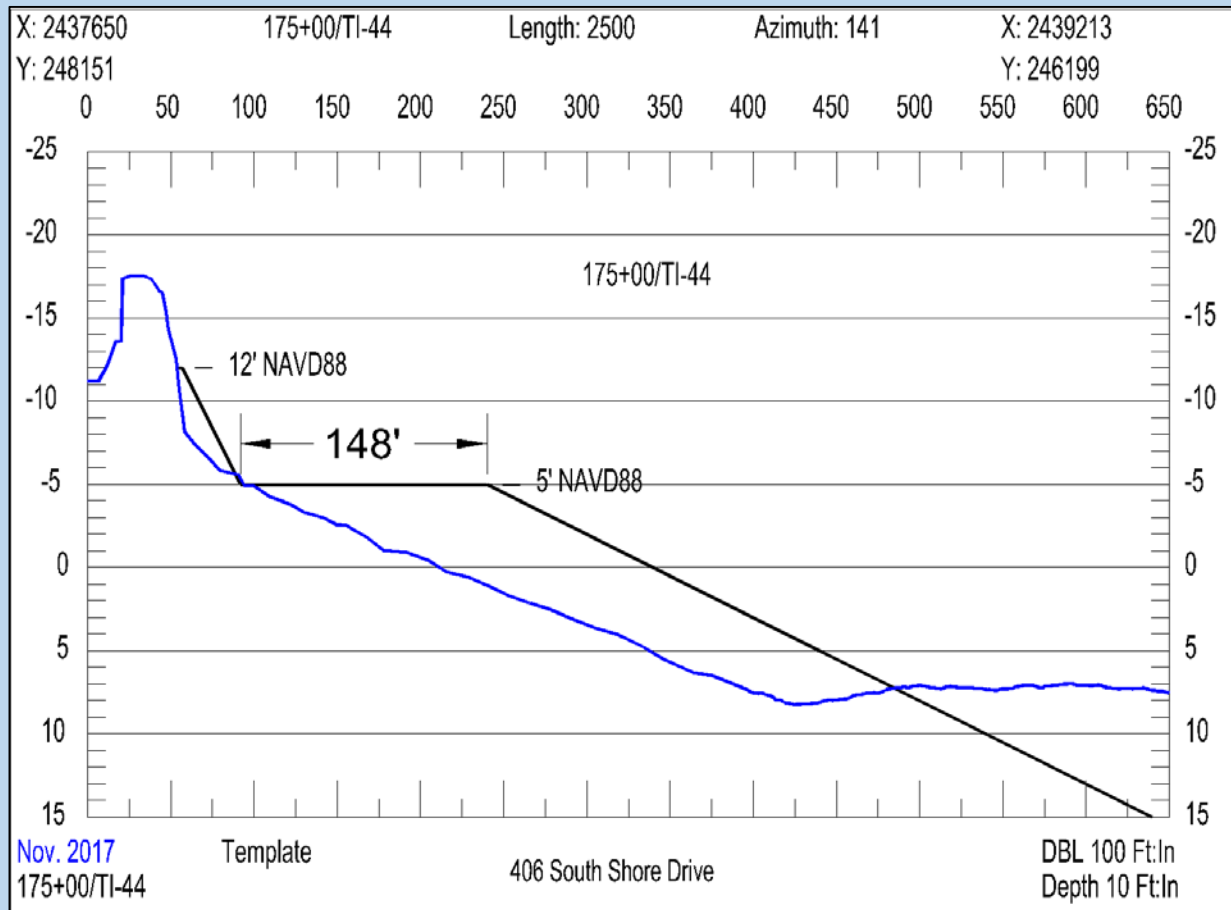
- **Borrow area volume is 1,779,200 cubic yards**
 - Banks Side Channel 1: 26,400 cubic yards
 - Banks Side Channel 2: 30,300 cubic yards
 - Banks Channel Station 210 to 0: 1,100,000 cubic yards
 - Banks Channel Station 210 to 325: 622,500 cubic yards

Location	Mean (mm)	% of Calcium Carbonate
Banks Side Channel 1	0.26	10.73
Banks Side Channel 2	0.33	13.6
Banks Channel Station 210 to 0	0.37	19.3
Banks Channel Station 210 to 325	0.29	13.6
Native	0.25	6.6

Area of Nourishment



TI Coastal Design – Option 1



Project Parameters

**Berm 145' wide
@ 5' NAVD**

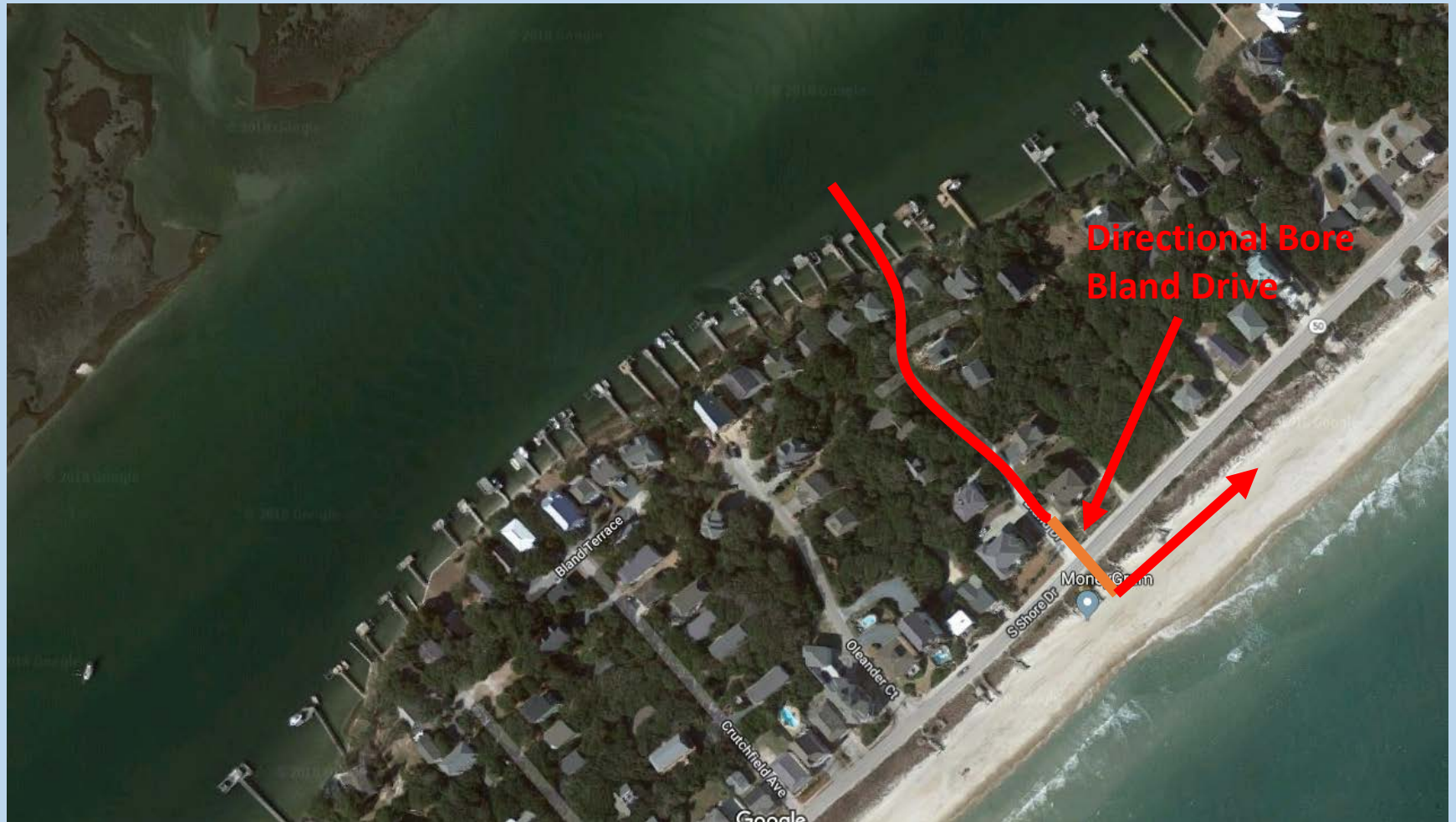
Dune Face Dressed

1:5 Dune Slope

1:20 Beach Slope

**2 Million CY Beachfill from
Back Channel System**

Island Crossing



Tasks Accomplished

Conduct Beach Monitoring Survey

Conduct Sediment Compatibility Analysis

Design Beach Template

Prepare Environmental Assessment

Timeline

Submit Permit Application – October 2018

Agency Permitting – 6 to 9 months

Bids – May/June 2019

Construction - Spring 2020



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